

**AMENDMENTS TO THE CLAIMS**

*Please amend claims as follows:*

1-123. (Cancelled).

124. (Previously presented) A method for fabricating an orthopedic implant prosthesis bearing, comprising the steps of:

pre-heating an ultrahigh molecular weight polyethylene (UHMWPE) preform at a temperature greater than ambient temperature and less than the decomposition temperature of the UHMWPE for a period of time greater than 30 minutes;

irradiating the UHMWPE preform, thereby crosslinking the UHMWPE preform;  
and

quenching residual free radicals in the UHMWPE preform.

125. (Previously presented) The method of claim 124, further comprising the steps of:  
cooling the preform after the quenching step to a temperature below the melting temperature of the UHMWPE; and

forming the preform into a prosthetic bearing.

126. (Previously presented) A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

pre-heating an ultrahigh molecular weight polyethylene preform;  
irradiating the ultrahigh molecular weight polyethylene preform, thereby crosslinking the ultrahigh molecular weight polyethylene preform;

quenching residual free radicals in the ultrahigh molecular weight polyethylene preform subsequent to the irradiating step; and

forming the ultrahigh molecular weight polyethylene preform into a prosthetic bearing.

127. (Previously presented) A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

- pre-heating an ultrahigh molecular weight polyethylene (UHMWPE) preform;
- irradiating the UHMWPE preform, thereby crosslinking the UHMWPE preform;
- quenching residual free radicals in the UHMWPE preform subsequent to the irradiating step; and
- forming the UHMWPE preform into a prosthetic bearing.

128. (Withdrawn) A method for fabricating an orthopedic implant prosthesis bearing, comprising the steps of:

- melting a polyethylene preform for a period of time greater than about 30 minutes;
- irradiating the polyethylene preform to crosslink the polyethylene preform; and
- quenching residual free radicals in the polyethylene preform.

129. (Withdrawn) The method of claim 128, further comprising the steps of:

- cooling the preform after the quenching step to a temperature below the melting temperature of the polyethylene; and
- forming the preform into a prosthetic bearing.

130. (Withdrawn) A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

- melting an ultrahigh molecular weight polyethylene preform;
- irradiating the ultrahigh molecular weight polyethylene preform to crosslink the ultrahigh molecular weight polyethylene preform;
- quenching residual free radicals in the ultrahigh molecular weight polyethylene preform subsequent to the irradiating step; and
- forming the ultrahigh molecular weight polyethylene preform into a prosthetic bearing.

131. (Withdrawn) A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

melting a polyethylene preform;

irradiating the polyethylene preform to crosslink the polyethylene preform;

quenching residual free radicals in the polyethylene preform after an irradiation;

and

forming the polyethylene preform into a prosthetic bearing.

132. (Withdrawn) The method according to claim 128, wherein the polyethylene is ultrahigh molecular weight polyethylene.

133. (Withdrawn) A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

irradiating a polyethylene preform that has been melted, thereby crosslinking the polyethylene

quenching residual free radicals in the polyethylene preform after an irradiation;

and

forming the polyethylene preform into a prosthetic bearing.

134. (Withdrawn) The method according to claim 133, wherein the polyethylene is ultrahigh molecular weight polyethylene.

135. **(New)** The method of claim 124, wherein the quenching step is carried out by heating the irradiated UHMWPE preform to a temperature above ambient temperature.

136. **(New)** The method of claim 126, wherein the quenching step is carried out by heating the irradiated UHMWPE preform to a temperature above ambient temperature.

137. **(New)** The method of claim 127, wherein the quenching step is carried out by heating the irradiated UHMWPE preform to a temperature above ambient temperature.

138. **(New)** The method of claim 124, wherein the UHMWPE preform is irradiated at a dose of about 4.0 Mrads to about 30.0 Mrads.

139. **(New)** The method of claim 126, wherein the UHMWPE preform is irradiated at a dose of about 4.0 Mrads to about 30.0 Mrads.

140. **(New)** The method of claim 127, wherein the UHMWPE preform is irradiated at a dose of about 4.0 Mrads to about 30.0 Mrads.